San Dieguito Water District

ANNUAL WATER QUALITY REPORT

WATER QUALITY TEST RESULTS FROM 2013

The water delivered by the San Dieguito Water District not only met, but exceeded all U.S. Environmental Protection Agency (USEPA) and California Department of Public Health (Department) drinking water health standards.

Test results from 2013 are available online at:
www.sdwd.org/2013waterqualityreport.pdf

WATER SUPPLY AND SAFETY

What Is This Report About?

This brochure is a snapshot of the quality of the water that the San Dieguito Water District provided in 2013. Included are details about where your water comes from, what it contains, and how it compares to standards set by regulatory agencies.

Where Does My Water Come From?

The San Dieguito Water District and Santa Fe Irrigation District jointly own and operate the R.E. Badger Filtration Plant. The plant treats both imported and local water. Imported water is delivered by pipeline from Lake Skinner located in the City of Hemet. Lake Skinner is a blend of water imported by the Metropolitan Water District of Southern California (MWD) from the Colorado River and the Sacramento River Delta.

Local water originates from Lake Hodges. Lake Hodges water is either transferred to the San Dieguito Reservoir through a small aqueduct and then to the treatment plant, or directly to the treatment plant via the Cielo Pump Station.

Source Water Assessment

Local water supplies are considered most vulnerable to agricultural and urban/stormwater runoff. A copy of the R. E. Badger Filtration Plant Watershed Sanitary Survey is available for review at the treatment plant. If you have any questions about this report, please call Cor Shaffer, Operations Manager, or Tim Bailey, Water Quality Analyst at (858) 756-2569. In December 2002, MWD completed its source water assessment of our imported water from the Colorado River and State Water Project supplies. Colorado River supplies are considered to be most vulnerable to recreation, urban/stormwater runoff, increasing urbanization in the watershed and wastewater. State Water Project supplies are considered to be most vulnerable to urban/stormwater runoff, wildlife, agriculture, recreation and wastewater. A copy of the assessment can be obtained by contacting MWD by phone at (213) 217-6850.

Is My Water Safe?

Yes! Last year, as in years past, your tap water not only met, but exceeded all U.S. Environmental Protection Agency (USEPA) and California Department of Public Health (Department) drinking water health standards. The San Dieguito Water District vigilantly safeguards the water supplies and is committed to providing high quality drinking water to its customers.

All drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791). Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, persons with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers.

USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

Español (Spanish) - Este informe contiene información muy importante sobre su agua potable. Tradúzcalo o hable con alguien que lo entienda bien. Para asistencia en español, llame (760) 633-2709.

R.E. Badger Filtration Plant

WHAT MIGHT BE IN MY DRINKING WATER?

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

Pesticides and herbicides, that may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, agricultural application, and septic systems.

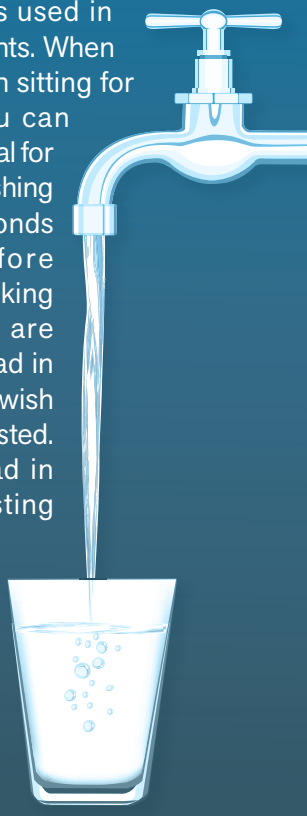
Radioactive contaminants, that can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, the USEPA and the Department prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Department regulations also establish limits for contaminants in bottled water that provide the same protection for public health.

Tables 1, 2, 3, 4, 5, and 6 list all of the drinking water contaminants that were detected during the most recent sampling for the constituent. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. The Department allows us to monitor for certain contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of the data, though representative of the water quality, are more than one year old.

Lead-Specific Language for Community Water Systems:

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The San Dieguito Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at http://www.epa.gov/safewater/lead.



2013 WATER QUALITY REPORT

TERMS USED IN THIS REPORT

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique (TT): A required process intended to reduce the level of a contaminant in drinking water.

Regulatory Action Level (AL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements that a water system must follow.

Variances and Exemptions: Department permission to exceed an MCL or not comply with a treatment technique under certain conditions.

ND: not detectable at testing limit
ppm: parts per million or milligrams per liter (mg/L)
ppb: parts per billion or micrograms per liter (µg/L)
ppt: parts per trillion or nanograms per liter (ng/L)
ppq: parts per quadrillion or picogram per liter (pg/L)
pCi/L: picocuries per liter (a measure of radiation)
Beta: a measure of radiation
grains/gal.: grains per gallon
TOC: Total Organic Carbon
NTU: Nephelometric Turbidity Units
µS/cm: Micro Siemens per centimeter

The presence of contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water hotline (1-800-426-4791) or on the USEPA's website http://water.epa.gov/drink/standards/hascience.cfm.

TABLE 1 – SAMPLING RESULTS SHOWING THE DETECTION OF COLIFORM BACTERIA

Microbiological Contaminants	Highest Number of Detections	Number of Months in Violation	MCL	MCLG	Typical Source of Bacteria
Total Coliform Bacteria	1 (in a month)	0	More than 5% of total samples in a month with a detection	0	Naturally present in the environment
Fecal Coliform or *E. coli*	0 (in the year)	0	A routine sample and a repeat sample detect total coliform and either sample also detects fecal coliform or E. coli	0	Human and animal fecal waste

TABLE 2 – SAMPLING RESULTS SHOWING THE DETECTION OF LEAD AND COPPER

Lead and Copper	Sample Date	Number of Samples Collected	90th Percentile Level Detected	Number of Sites Exceeding AL	AL	PHG	Typical Source of Contaminant
Lead (ppb)	2013	30	0	0	15	0.2	Internal corrosion of household water plumbing systems; discharges from industrial manufacturers; erosion of natural deposits
Copper (ppm)	2013	30	0.059	0	1.3	0.3	Internal corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives

TABLE 3 – SAMPLING RESULTS FOR SODIUM AND HARDNESS

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Sodium (ppm)	2013	107	81-140	none	none	Salt present in the water and is generally naturally occurring
Hardness (ppm)	2013	282	250-320	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring
Hardness (grains/gal.)	2013	16.5	14.6 - 18.7	none	none	Sum of polyvalent cations present in the water, generally magnesium and calcium, and are usually naturally occurring

TABLE 4 – DETECTION OF CONTAMINANTS WITH A PRIMARY DRINKING WATER STANDARD

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL [MRDL]	PHG (MCLG) [MRDLG]	Typical Source of Contaminant
Gross Beta Particle Activity (pCi/L)	2014	5.4	5.4	50	0	Erosion of natural deposits
Gross Alpha Particle Activity (Beta)	2014	1.95	1.95	15	0	Decay of natural and man-made deposits
Aluminum (ppm)	2013	0.009	ND-0.038	1	0.6	Erosion of natural deposits; residue from some surface water treatment processes
Arsenic (ppb)	2013	0.55	ND-1.2	10	0.004	Erosion of natural deposits; runoff from orchards; glass and electronics production wastes
Barium (ppm)	2013	0.077	0.05-0.31	1	2	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
Fluoride (ppm)	2013	0.28	0.21-0.38	2	1	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Total THMs (ppb)	2013	48.8	41-60	80	N/A	By-product of drinking water disinfection
Total HAA5 (ppb)	2013	15.5	12-21	60	N/A	By-product of drinking water disinfection
Chlorite (ppm)	2013	0.679	ND-0.48	1.0	0.05	By-product of drinking water disinfection
Chloramines (ppm)	2013	2.10	1.5-2.46	4	4	Drinking water disinfectant added for treatment
Chlorine Dioxide (ppb)	2013	< 50	ND-10	800	800	Drinking water disinfectant added for treatment
DBP Precursors (ppm TOC)	2013	3.25	1.99-5.29	TT	TT	Various natural and man-made sources

TABLE 5 – DETECTION OF CONTAMINANTS WITH A SECONDARY DRINKING WATER STANDARD

Chemical or Constituent	Sample Date	Level Detected	Range of Detections	MCL	PHG (MCLG)	Typical Source of Contaminant
Aluminum (ppb)	2013	9.5	ND-38	200	N/A	Erosion of natural deposits; residue from some surface water treatment processes.
Color (Units)	2013	4.6	3.8-5.5	15	N/A	Naturally-occurring organic materials
Odor (Units)	2013	1.0	1-2	3	N/A	Naturally-occurring organic materials
Turbidity (NTU)	2013	0.02	0.01-0.25	5	N/A	Soil runoff
Total Dissolved Solids (ppm)	2013	625	530-770	1000	N/A	Runoff/leaching from natural deposits
Specific Conductance (µS/cm)	2013	1020	870-1200	1600	N/A	Substances that form ions when in water; seawater influence
Chloride (ppm)	2013	127	83-180	500	N/A	Runoff/leaching from natural deposits; seawater influence
Sulfate (ppm)	2013	195	180-210	500	N/A	Runoff/leaching from natural deposits; industrial wastes
UCMR 3 DETECTIONS (UNREGULATED CONTAMINANTS)						
Molybdenum (ppb)	2013	3.8	3.2 - 4.4	None	None	N/A
Strontium (ppb)	2013	706	510 - 790	None	None	N/A
Vanadium (ppb)	2013	1.8	1.5 – 2.5	None	None	N/A
Chlorate (ppb)	2013	227.5	150 - 340	None	None	N/A
Hexavalent Chromium (ppb)	2013	0.046	ND – 0.062	None	None	N/A
Bromochloromethane (ppt)	2013	42.5	ND - 90	None	None	N/A

**Any violation of an MCL, MRDL, or TT is asterisked. Additional information regarding the violation is provided later in this report (if required).*

TABLE 6 - SAMPLING RESULTS SHOWING TREATMENT OF SURFACE WATER SOURCES

Treatment Technique [a] (Type of approved filtration technology used)	Conventional Treatment
Turbidity Performance Standards [b] (that must be met through the water treatment process)	Turbidity of the filtered water must: 1 – Be less than or equal to 0.3 NTU in 95% of measurements in a month. 2 – Not exceed 1.0 NTU for more than eight consecutive hours. 3 – Not exceed 5.0 NTU at any time.
Lowest monthly percentage of samples that met Turbidity Performance Standard No. 1.	100%
Highest single turbidity measurement during the year	0.25
Number of violations of any surface water treatment requirements	None

[a] A required process intended to reduce the level of a contaminant in drinking water.
[b] Turbidity (measured in NTU) is a measurement of the cloudiness of water and is a good indicator of water quality and filtration performance. Turbidity results which meet performance standards are considered to be in compliance with filtration requirements.

WATER USE EFFICIENCY PROGRAM

The San Dieguito Water District offers conservation outreach, education and incentives. Visit our website for new programs, workshops, events, and information: www.sdwd.org/conserve. For conservation questions, e-mail us at conserve@sdwd.org, or call (760) 633-2676.

WaterSmart Checkups

Help control irrigation costs at your home or business with a checkup from a certified irrigation specialist. This is a great way to increase efficiency and get site-specific recommendations. Single-family home checkups also include recommendations to increase indoor water-use efficiency. There is no obligation, and it's free! Visit **watersmartcheckup.org** to apply.

Commercial - Business Water Use Efficiency

There are rebates available through **www.socalwatersmart.com** for water efficient landscape irrigation and business-specific indoor devices. For a limited time, the Metropolitan Water District is offering an enhanced incentive program for Fitness Centers and the Public Sector. Please contact us at **conserve@sdwd.org** for details or visit **www.socalwatersmart.com**.

Residential Program

Rebates are available for high efficiency clothes washers, smart irrigation controllers, rotating sprinkler nozzles, and more through **www.socalwatersmart.com**.

Regional Resources

www.WaterSmartsd.org is filled with information about conservation incentives, tools and programs designed to make the most of the region's limited water supplies regardless of how much rain or snow Mother Nature brings each winter. The site is organized to provide content relevant to homeowners, homeowners' associations, businesses (including agricultural operations), public institutions and the educational sector. The e-Guide to a WaterSmart Lifestyle from San Diego County Water Authority is available for FREE online. San Diego County residents now have a versatile and comprehensive resource for indoor and outdoor water conservation available at their fingertips wherever they go. CWA created this wonderful on-line magazine to inspire, educate and empower homeowners to make water-efficient choices in their homes and gardens. Visit **www.watersmartsd.org** for the e-guide.

Turf Replacement Rebate Programs

Turf replacement incentives are offered by the San Diego County Water Authority at $1.50 per square foot. Go to **turfreplacement.watersmartsd.org** for more information and for great ideas and examples of how to make over your landscape to be WaterSmart and beautiful.

The MWD turf replacement rebate program offers $2 per square foot of turf replaced, for a minimum of 250 square feet. You can use this simultaneously with the SDCWA incentive, listed above. The parameters of both programs are different but you can apply and qualify for both programs simultaneously. Please be aware that applications for turf replacement rebates must be submitted before you begin to remove the turf. Visit **www.socalwatersmart.com** for details.

Incentive programs are on a first-come, first-served basis until funds are exhausted. For program information and updates, visit **www.sdwd.org/conserve**.

Resources for Home Water Use Efficiency

For information about programs and workshops, as well as great ideas to help you save water and money both inside the home and outdoors, visit our website at **www.sdwd.org/conserve**.

Recycled Water

The San Dieguito Water District and San Elijo Joint Powers Authority (SEJPA) have partnered to bring recycled water to the area's golf course, homeowners' associations, parks, schools, parkways and medians. In 2013, approximately 218 million gallons of recycled water was provided to the District's customers. By utilizing recycled water, we are making the most of one of Southern California's most precious resources – water. Using recycled water helps the environment and is an important part of diversifying the local water supply.

If you would like to know more about the availability of recycled water in your area, please call us at (760) 633-2709.

EPA WaterSense PARTNER

water|smart
San Dieguito Water District
www.watersmartsd.org

San Dieguito Water District
160 Calle Magdalena
Encinitas, CA 92024

The San Dieguito Water District supplies water to Old Encinitas, Cardiff and Leucadia within the City of Encinitas. It covers 8.9 square miles and generally lies west of El Camino Real to the ocean. When the City of Encinitas was incorporated, the City Council of the City of Encinitas became the governing board of the Water District.

Getting Involved: The San Dieguito Water District Board of Directors meets on the third Wednesday of each month at 5:00 pm at Encinitas City Hall. City Hall is located at 505 South Vulcan Avenue, Encinitas. Please feel free to participate in these meetings.

www.sdwd.org | facebook.com/SanDieguitoWaterDistrict